non-percutaneous coronary intervention (PCI) facility. ACC/AHA Clinical AMI Performance Measures recommend a benchmark of ≤30 minutes DIDO time. However, recent studies indicate this is difficult to achieve. Our goal was to evaluate the effect of various DIDO times on clinical outcomes.
Methods: Using a comprehensive prospective regional STEMI program database, we evaluated the outcome of STEMI patients based on DIDO times of ≤30 minutes, 30-45 minutes, 46-60 minutes, 61-90 minutes, and >90 minutes.
Results: Of 3,435 consecutive STEMI patients who presented to the Minneapolis Heart Institute at Abbott Northwestern Hospital regional STEMI system 4/03 to 12/11, 2,589 were transferred from non-PCI facilities (Zone 1 0-60 miles, Zone 2 60-210 miles). The baseline characteristics and outcomes for the DIDO groups are shown in Table 1. Longer DIDO times occurred in patients with increased age, history of diabetes, presentation during off-peak hours, self-transfer to non-PCI hospital, no intervention performed, and Zone 2 patients. As expected, patients with shorter DIDO times were more likely to have a door to balloon time ≤120 minutes, but there was basically no difference in <30 and 30-45 minutes groups (96.5% vs. 94.5%). Patients with DIDO >90 were less likely to have a culprit artery which required an intervention. When adjusted for difference in baseline characteristics, there were no differences in 30 day or 1 year mortality.
Conclusions: DIDO time is a complex measure influenced by many factors. There is with basically no difference in clinical outcomes for patients with DIDO <30 compared to 30-45 minutes. Clinical outcomes appear to be more related to factors which increase DIDO time than the time itself.

	DIDO 0-30 (n=279)	DIDO 31-45 (n=649)	DIDO 46-60 (n=651)	DIDO 60-90 (n=613)	DIDO>90 (n=374)	P-value
Age (Yrs), (Mean (SD))	60.5 (13.1)	61.4 (13.8)	62.0 (14.0)	64.1 (14.7)	63.7 (14.9)	<0.001
Male (N/%)	208/74.6%	482/74.3%	469/72.0%	428/69.8%	259/69.3%	0.25
Diabetes Mellitus (N/%)	42/15.1%	86/13.3%	101/15.6%	115/18.8%	74/19.8%	0.027
Initial Hospital Zone 1 (N/%)	213/76.3%	476/73.7%	372/57.1%	291/47.6%	177/47.5%	<0.001
Presentation to ANW during traditional peak hours (N/%)	120/43.2%	234/36.1%	229/35.2%	196/32.0%	115/30.8%	0.008
Mode of Arrival IH—Ambulance (N/%)	189/67.7%	251/38.7%	229/35.2%	217/35.4%	105/28.1%	<0.001
Prior ED Activation (N/%)	45/16.1%	65/10.0%	49/7.53%	27/4.4%	26/7.0%	<0.001
Cardiac Arrest—Pre PCI & In Cath (N/%)	28/10.04%	69/10.63%	72/11.06%	84/13.7%	38/10.16%	0.50
Cardiogenic shock (N/%)	20/7.3%	40/6.4%	56/8.8%	61/10.2%	35/9.5%	0.13
Intervention performed (N/%)	242/86.74%	543/83.67%	519/79.72%	467/76.18%	250/66.84%	<0.001
Door to Balloon ≤ 120 minutes (%) (95% Wald CL)	96.5% (21.5, 100)[a]	94.5% (21.3, 100)[a]	84.1% (18.9, 100)[a]	46.0% (10.2, 100)[b]	3.6% (1.7, 7.5)[c]	<0.001†
30 day mortality, (%) (95% Wald CL)*	4.8% (0.6, 36.0)	6.5% (1.1, 37.8)	5.7% (1.0, 33.1)	5.3% (0.9, 30.2)	11.5% (3.4, 38.2)	0.18
1 year mortality (%) (95% Wald CL)**	5.5% (0.9, 32.0%)	8.0% (1.7%, 38.3%)	6.8% (1.4%, 32.8%)	8.4% (1.8%, 39.2%)	10.2% (3.3%, 31.5%)	0.27

[abc]Estimates with the same superscripts do not differ (p>0.05)

*Mortality rates adjusted for baseline differences of age, intervention performed, cardiac arrest, and cardiogenic shock

**Mortality rates adjusted for age, intervention performed, arrival mode to tertiary hospital, cardiac arrest, and cardiogenic shock, and cardiac arrest "Cool-It" patient

TCT-531

Positive Predictive Value Of Clinically Suspected ST-Segment Elevation Myocardial Infarction Using Angiographic Verification

Søren Becker[1], Gro Chisholm[2], Michael Maeng[3]
[1]Aarhus University Hospital, Skejby, Aarhus, Denmark, [2]Skejby University Hospital, Skejby, Aarhus, Denmark, [3]Aarhus University Hospital, Aarhus, Denmark

Background: Fibrinolysis has not been used for the treatment of ST-segment elevation myocardial infarction (STEMI) in Denmark since 2005. The aim of the present study was to assess the positive predictive value of clinically suspected STEMI among consecutive patients in a real-world setting where all patients with suspected STEMI undergo acute coronary angiography.
Methods: We evaluated the clinical diagnosis of consecutive patients with suspected STEMI admitted to Aarhus University Hospital between September 1, 2010 and August 31, 2011 who underwent acute angiography. Conclusive STEMI was defined as a patient with an, by angiography, identifiable culprit lesion.
Results: Of 615 patients with suspected STEMI, 483 (79%) had conclusive STEMI while 132 (21%) did not have an identifiable culprit lesion. Patients with conclusive STEMI had a higher proportion of male gender (73% versus 60%; P=0.004), advanced age (mean, 64 versus 62 years; P=0.005), and a lower ejection fraction (47% versus 50%; P=0.003). Patients without conclusive STEMI were more likely to have diabetes (16% versus 10%; P=0.04), left bundle branch block (24% versus 2%; P<0.001), hypertension (48% versus 36%; P=0.01), or a history of coronary artery bypass surgery (8% versus 2%; P=0.001). Among patients without conclusive STEMI, 41% had positive biomarkers and a number of differential diagnoses were identified.
Conclusions: In this real-world setting, the positive predictive value of clinically suspected STEMI was 79%. A substantial number of "false-positive" patients would have received fibrinolysis if acute angiography had not been available.

TCT-532

The Effect of Northeast Japan Earthquake on Acute Myocardial Infarction

Nobuyuki Kuroiwa[1], Shigeru Fukuzawa[1], Soichiro Ichikawa[1], Atsushi Ikeda[1], Masayuki Inagaki[1], Junpei Maekawa[1], Shuichi Okamoto[1], Shinichi Okino[1], Juji Sugioka[1]
[1]Funabashi Municipal Medical Center, Chiba, Japan, Funabashi CIty, Chiba

Background: Tragic magnitude 9.0 earthquake hit Northeast Japan on 11 March 2011. Even at Medical center in Chiba prefecture which is located 400 km away from a hypocenter have experienced a strong quake. City's function was thrown into confusion for couple of days, but not so many people were reported to be dead in our medical district and population change was limited. According to the past statistics, in such a disastrous situation, tend to increase acute myocardial infarction (AMI) patients. Our objective was to investigate whether disaster stress will increase AMI patients.
Methods: Retrospective study was performed at Funabashi Municipal Medical Center, Division of Cardiology, Heart and Vessel Institute, Chiba, Japan. We have compared 307 patients who were hospitalized for AMI between Mar11th to Aug 10th (6 month period) for years 2006 to 2012. For year 2012, only March to June data was included. Monthly figure stands for 11th of the month to 10th of next month. The age was from 32 to 92 (mean 67.6±11.7) and gender were Male 250 and Female 57. Study was made between 2006 to 2010 plus 2012 group and 2011 group.
Results: The number of AMI patient for 2011 March was 15 (14 underwent percutaneous coronary intervention) and average for 2006 to 2010 plus 2012 group was only at 5.7. The AMI number after catastrophe increased by 163% and strong correlation between the number of aftershock and AMI were seen. There were no significant difference between groups in age, gender, coronary risk factors, culprit lesion and mean blood pressure at arrival.

Number of AMI patients	Mar	Apr	May	Jun	Jul	Aug
2006	5	7	4	8	4	2
2007	5	13	4	7	15	8
2008	4	12	6	4	8	8
2009	9	4	9	15	10	9
2010	6	12	8	7	8	11
2012	5	11	9	-	-	-
2006-2010 & 2012 average	5.7	9.8	6.7	8.2	9	7.6
2011 (change%)	**15 (+163%)**	**4 (−59%)**	**10 (+49%)**	**7 (−15%)**	**6 (−33%)**	**8 (+5%)**

Conclusions: This study demonstrates that disaster stress might be the risk factor for AMI and increases hospitalized patients. Also we have experienced the importance of PCI facility running after the catastrophe since number of patients will increase. Over all, further investigation using large number of cases is necessary. Multiple center investigation is required.

TCT-533

Impact of High High-Density Lipoprotein-Cholesterol on 1-year Outcome of Patients With Acute Coronary Syndrome Undergoing Percutaneous Coronary Intervention

Yun-Kyeong Cho[1], Ji-Hyun Sohn[1], Hyun-Ok Cho[1], Hyoung-Seob Park[1], Hyuck-Jun Yoon[1], Hyungseop Kim[1], Chang-Wook Nam[1], Seung-Ho Hur[1], Yoon-Nyun Kim[1], Kwon-Bae Kim[1]
[1]Keimyung University Dongsan Hospital, Daegu, Korea, Republic of

Background: High-density lipoprotein-cholesterol (HDL-C) is a continuous inverse cardiovascular risk factor. However, little is known about the influence of HDL-C on outcome of patients with acute coronary syndrome (ACS) undergoing percutaneous coronary intervention (PCI).
Methods: A total of 2169 consecutive patients with ACS underwent elective PCI was enrolled. We evaluated the impact of HDL-C on 1-year occurrence of death, non-fatal myocardial infarction and target lesion revascularization. The patients were divided into 2 groups: high HDL-C (> 50 mg/dL for female and > 40 mg/dl for male) and low HDL-C (≤ 50 mg/dL for female and ≤ 40 mg/dl for male).
Results: patients with high HDL-C had a higher incidence of male and hypercholesterolemia. After correction for baseline differences, patients with high HDL-C had a significant lower 1-year outcome (OR 0.567, 95% CI 0.402-0.799, p=0.001).

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